

10/527,873

P-2564

REPLY

The Examiner withdrew the prior rejections and indicated new grounds of rejection for the remaining claims 23-27.

The Examiner rejected claims 23-27 under 35 USC §112, first paragraph as failing to comply with the written description requirement.

Independent claim 23 and independent claim 27 have been amended to obviate the Examiner's rejection under 35 USC §112, first paragraph. The word "substantially" has been deleted. In claim 23, the first bladder portion conforms to a portion of the internal surface and the second bladder portion also conforms to a portion of the internal surface. Claim 23 also now recites a passive detectable electronic location sensor fixed to said second bladder portion. Support for this can be found in the specification as filed on page 6, line 24 wherein it recites, "The Sensor may be fixed to the bladder...", and on page 7, lines 10-12 wherein it recites "...fixing of the Sensor on the internal surface of the ball through one or more supports whose ends/extremities are stuck or fixed in any way to the support surface (example in picture 6)...".

Independent claim 27 has been amended to recite a "sensor support extending along a diameter of the internal spherical surface and formed by said bladder". Accordingly, the bladder

10/527,873

P-2564

forms the sensor support along a diameter of the internal spherical surface. This construction is clearly indicated in Fig. 6 where the bladder and the sensor support are clearly labeled and the sensor support is clearly seen formed by the bladder along a diameter. Claim 27 has also been amended to specifically recite that the passive detectable electronic location sensor is formed into and **fixed** inside the sensor support.

Therefore, it is believed that the amended independent claims 23 and 27 are sufficiently supported by the specification so as to enable any person skilled in the art to make and use the same.

The Examiner also rejected claims 23-27 under 35 USC §103(a) as being unpatentable over King Jr. in view of Spector.

King Jr. discloses a ball transmitter 40 embedded under the outer skin of the ball 12. Sensor/transmitters 80 are placed within cones 82 within both of the field end zones 202. Out-of-bounds cone mounted sensors 114 are optionally placed along the field boundaries.

Spector discloses a chemi-luminescent device 11 inserted into an inflatable globe. An open-ended cylindrical duct 13 extends diametrically through the globe 10 holding the chemi-luminescent device 11.

The Examiner has indicated as a rational for combining the teachings of a ball transmitter embedded under the outer skin of

10/527,873

P-2564

'a ball disclosed in King Jr. with the chemi-luminescent device 11 inserted into an inflatable globe disclosed in Spector, because it would allow the invention to be used in professional sports where a exterior sensor would interfere with the playing and stability of the game ball. (Office Action, Page 4, lines 27-28) However, this is merely an effort of hindsight reconstruction once the teachings of the Applicant's invention are known. The Examiner has failed to establish a *prima facie* case of obviousness and that the specific arrangement of elements as recited in claims 23-27 would have been obvious to one of ordinary skilled in the art. Clearly, the problems solved in Spector of holding a chemi-luminescent device so as to provide uniform illumination and yet be easily accessible for replacement or tuning on and off are quite distinct from the ball transmitter disclosed in King Jr. or the passive electronically detectable ball device of the present invention.

The present invention, by fixing the sensor to the bladder it is securely held in position. This is contrary to the teachings in Spector and purpose of the open-ended cylindrical duct 13 and inserted activated chemi-luminescent device 11. In Spector the chemi-luminescent device 11 must be loosely held in the duct 13 because the chemi-luminescent device 11 must be activated prior to being inserted as well as to be replaced once spent. Therefore, there would be no rational or reasonable basis

10/527,873

P-2564

to modify King Jr. so as to place a sensor in a fixed position centrally within the interior of the ball without the teaching of the present application. In Spector, the placement of the chemiluminescent device 11 in the center of the ball is solely for the purpose of providing uniform light or illumination so as to function as a lighted playing ball or an emergency or decorative light source. (Spector, column 4, lines 52-54). Therefore, there would be no reason to provide a passive detectable electronic location sensor **fixed** to the second bladder portion or formed into and **fixed** inside the sensor support substantially midway along the diameter, as recited in the claims of the application.

The advantage of the present invention is that by placing and fixing the sensor in the middle of the ball, the location of the ball can very accurately be detected. If the sensor is placed on the circumference of the ball as taught in the prior art King, Jr., the ball can only be accurately located to within one diameter of the ball. Additionally, simply inserting a passive detectable electronic location sensor in the "open-ended cylindrical duct 13" disclosed in Spector would not form the present invention as the passive detectable electronic location sensor would not be adequately fixed so as to prevent movement during the rough treatment uncounted by the ball in a soccer or ball game.

10/527,873

P-2564

The structure recited in the amended claims provides for a rugged more reliable electronically detectable ball that is relatively easily and inexpensively manufactured. The structure of the ball, so that the passive detectable electronic location sensor is inaccessible from outside of the electronically detectable ball is advantageous in that the ball does not appear externally any different than a typical ball and can be made much more reliable and rugged.

Accordingly, it is respectfully requested that the Examiner reconsider the present application enter this Amendment and Reply and indicate allowable subject matter.

Respectfully submitted,



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